WE CLAIM:

1. A method of communicating Constant Bit Rate ("CBR") data and Variable Burst Rate ("VBR") data in a single RF carrier via a communication system, said method comprising the steps of:

determining whether the data stream is CBR or VBR;

when said data stream is CBR, communicating the CBR data stream using Code Division Multiplexing/Code Division Multiple Access ("CDM/CDMA") with first spreading factor codewords, whereby a CBR-CDMA data signal is generated; and

when said data stream is VBR data, communicating the VBR data stream using Time Division Multiplexing/Time Division Multiple Access ("TDM/TDMA") and CDM/CDMA with second spreading factor codewords.

2. The method according to claim 1, wherein the step of communicating the CBR data stream using CDM/CDMA comprises the steps of:

spreading the CBR data stream at a transmitter using CDM/CDMA with the first spreading factor codewords; and

transmitting the CBR-CDM or CBR-CDMA data signal in an allocated transmission channel.

3. The method according to claim 1, wherein the step of communicating the VBR data stream using TDM/TDMA and CDM/CDMA comprises the steps of:

spreading the VBR data stream at a transmitter using CDM/CDMA with the second spreading factor codewords; and

transmitting the VBR-CDMA data signal in an allocated transmission channel.

4. The method according to claim 1, wherein the step of communicating the VBR data stream using TDM/TDMA and CDM/CDMA comprises the steps of:

spreading the VBR data stream at a transmitter using CDM/CDMA with the second spreading factor codewords;

placing the VBR-CDMA data signal in data packets;

interleaving the data packets with TDM/TDMA to generate a VBR-CDMA-TDMA data signal; and

transmitting the VBR-CDMA data signal in an allocated transmission channel to a receiver.

5. The method according to claim 1, wherein said step of communicating the VBR data stream using TDM/TDMA and CDM/CDMA further comprises the steps of:

despreading and extracting such signal using the corresponding first spreading factor codeword and necessary processing.

6. The method according to claim 4, wherein said step of communicating the VBR data stream using CDM/CDMA further comprises the steps of:

despreading and extracting the CBR-CDM or CBR-CDMA data signal using the corresponding first spreading factor codeword and necessary processing.

7. The method according to claim 1, wherein said step of communicating the VBR data stream further comprises the steps of:

spreading the VBR data stream at a transmitter using CDM/CDMA with the second spreading factor codewords;

placing the spread VBR-CDM or VBR-CDMA data signal in data packets;

interleaving the data packets with TDM/TDMA into a single TDM/TDMA data signal to generate a VBR-TDM-CDM or VBR-TDMA-CDMA data signal; and

transmitting said data signal in an allocated transmission channel to a receiver.

8. The method according to claim 4, wherein said step of communicating the VBR data stream using TDM/TDMA and CDM/CDMA comprises the steps of:

despreading the VBR-TDM-CDM or VBR-TDMA-CDMA data signal using the second spreading factor codeword and necessary processing; and

deinterleaving the VBR-TDM-CDM or VBR-TDMA-CDMA data signal with TDM/TDMA.

9. The method according to claim 1, wherein the first spreading factor codewords are calculated based on the data rate required for the corresponding applications and the second spreading factor codeword is calculated based on the available transmission power after the necessary power has been allocated to all those signals using the first spreading factor codewords.

10. The method according to claim 4, wherein the first spreading factor codewords are calculated based on the data rate required for the corresponding applications and the second spreading factor codeword is calculated based on the available transmission power after the necessary power has been allocated to all those signals using the first spreading factor codewords.

11. The method according to claim 1, wherein said communication system simultaneously accepts CBR and VBR data streams, the CBR and VBR data streams being communicated as an aggregated signal.

12. The method according to claim 11 further comprising the steps of:

modifying the first spreading factors codewords on-the-fly for the CBR portion of the aggregated signal; and

modifying the second spreading factor codewords on-the-fly for the VBR portion of the aggregated signal.

13. The method according to claim 1 wherein one of the first spreading factor codewords are different from the second spreading factor codewords and the first spreading factor codewords are the same as the second spreading factor codewords.

14. A communication system for communicating CBR data and VBR data in a single data stream comprising:

a transmitter for determining whether the data is CBR and VBR;

if said data stream comprises CBR, the transmitter communicating the CBR data stream using CDM/CDMA with first spreading factor codewords, whereby a CBR-CDM or CBR-CDMA data signal is generated; and

if said data stream comprises VBR, the transmitter communicating the VBR data stream using TDM/TDMA and CDM/CDMA with second spreading factor codewords, whereby a VBR-TDM-CDM or VBR-TDMA-CDMA data signal is generated, the first spreading factor codewords being different from the second spreading factor codewords.

15. The communication system according to claim 14, further comprising:

the transmitter spreading the CBR data stream using CDM/CDMA with the first spreading factor codewords.

16. The communication system according to claim 14, further comprising:

the transmitter spreading the VBR data stream using CDM/CDMA with the second spreading factor codewords.

17. The communication system according to claim 14, further comprising:

the transmitter spreading the VBR data stream using CDM/CDMA with the second spreading factor codewords, placing the VBR-CDM or VBR-CDMA data signal in data packets and interleaving the data packets with TDM/TDMA to generate a VBR-TDM-CDM or VBR-CDMA-TDMA data signal.

18. The communication system according to claim 17, further comprising:

if the intended signal is a CBR-CDM or CBR-CDMA data signal, the receiver despreading the CBR-CDM or CBR-CDMA data signal using CDM/CDMA with the first spreading factor codewords.

19. The communication system according to claim 17, further comprising:

if the intended signal is a CBR-CDM or CBR-CDMA data signal, the receiver despreading the CBR-CDM or CBR-CDMA data signal using CDM/CDMA with the first spreading factor codewords.

20. The communication system according to claim 14, further comprising:

the transmitter spreading the VBR data stream using CDM/CDMA with the VBR spreading factor codewords, placing the VBR-CDM or VBR-CDMA data signal in data packets and interleaving the data packets with TDM/TDMA to generate a VBR-TDM-CDM or VBR-TDMA-CDMA data signal.

21. The communication system according to claim 17, further comprising:

if the intended signal is a VBR data stream, the receiver despreading the VBR-TDM-CDM or VBR-TDMA-CDMA data signal using CDM/CDMA with the second spreading factor codewords; and

the receiver deinterleaving the VBR-TDM or VBR-TDMA data signal with TDM/TDMA.

22. The method according to claim 14, wherein the first spreading factor codewords are calculated based on the data rate required for the corresponding applications and the second spreading factor codeword is calculated based on the available transmission power after the necessary power has been allocated to all those signals using the first spreading factor codewords.

23. The method according to claim 17, wherein the first spreading factor codewords are calculated based on the data rate required for the corresponding applications and the second spreading factor codeword is calculated based on the available transmission power after the necessary power has been allocated to all those signals using the first spreading factor codewords.

24. The communication system according to claim 14 wherein said communication system simultaneously accepts CBR and VBR data streams, the CBR and VBR data streams being communicated as a single aggregated signal.

25. The communication system according to claim 24, further comprising:

the transmitter modifying the first spreading factors codewords on-the-fly for the CBR portion of the aggregated signal; and

the transmitter modifying the second spreading factor codewords on-the-fly for the VBR portion of the aggregated signal.

26. The communication system according to claim 14 wherein one of the first spreading factor codewords are different from the second spreading factor codewords and the first spreading factor codewords are the same as the second spreading factor codewords.